

What is claimed is:

5.3 A. } 1. A method for compressing image data fed from an image sensor having a color pixel array, comprising:

5 (a) extracting red, green and blue(R/G/B) color values from the image data;

(b) calculating vertical difference color values between current R/G/B color values of a current line and previous R/G/B color values of a previous line;

(c) dividing the vertical difference color values with a predetermined loss value to obtain quota color values;

10 (d) estimating horizontal difference color values between a current quota color value and a previous quota color value; and

(e) coding the horizontal difference values.

15 2. A method according to claim 1, further including before (b):

determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, proceeding to (c) without performing (b).

20 3. A method according to claim 1 or claim 2, further comprising before (c):

adding remainder color values obtained from (c) to the vertical difference values.

25 4. A method according to claim 1 or claim 2, wherein the color pixel array has a bayer pattern.

5. A method according to claim 1, further comprising:

(g) repeating (a) to (d) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

6. A method for compressing image data fed from an image sensor having a color pixel array, comprising:

- (a) extracting red, green and blue(R/G/B) color values from the image data;
- 5 (b) calculating vertical difference values between current R/G/B color values of a current line and previous R/G/B color values of a previous line, respectively;
- (c) adding the vertical difference values with previous R/G/B remainder color values to obtain added color values;
- (d) dividing the added color values with a predetermined loss value to generate
10 current R/G/B quota color values and current R/G/B remainder color values;
- (e) estimating horizontal difference values between the current R/G/B quota color values and previous R/G/B quota color values; and
- (e) coding the horizontal difference values.

15 7. A method according to claim 6, further comprising:

- (f) repeating (a) to (e) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

8. A method according to claim 6, further comprising before (b):

- 20 (g) determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, performing (c) without performing (b).

25 9. A computer readable medium having program code stored therein which when executed by a computer causes data representing image data from an image sensor having a color pixel array to be compressed by:

- (a) extracting red, green and blue(R/G/B) color values from the image data;

(b) calculating vertical difference color values between current R/G/B color values of a current line and previous R/G/B color values of a previous line;

(c) dividing the vertical difference color values with a predetermined loss value to obtain quota color values;

(d) estimating horizontal difference color values between a current quota color value and a previous quota color value; and

(e) coding the horizontal difference values.

10. A computer readable medium according to claim 9, further including before (b):
determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, proceeding to (c) without performing (b).

11. A computer readable medium according to claim 9 or claim 10, further comprising before (c):

adding remainder color values obtained from (c) to the vertical difference values.

12. A computer readable medium according to claim 9 or claim 10, wherein the color pixel array has a bayer pattern.

13. A computer readable medium according to claim 9, further comprising:

(g) repeating (a) to (d) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

14. A computer readable medium having program code stored therein which when executed by a computer causes data representing image data from an image sensor having a color pixel array to be compressed by:

- 5 (a) extracting red, green and blue(R/G/B) color values from the image data;
(b) calculating vertical difference values between current R/G/B color values of a current line and previous R/G/B color values of a previous line, respectively;
(c) adding the vertical difference values with previous R/G/B remainder color values to obtain added color values;
(d) dividing the added color values with a predetermined loss value to generate current R/G/B quota color values and current R/G/B remainder color values;
(e) estimating horizontal difference values between the current R/G/B quota color values and previous R/G/B quota color values; and
10 (e) coding the horizontal difference values.

15. A computer readable medium according to claim 14, further comprising:

- (f) repeating (a) to (e) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

16. A computer readable medium according to claim 14, further comprising before

(b):

- (g) determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, performing (c) without performing (b).